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**FORTUNA ENGINEERING INDUSTRIES**

# MONO WIRE DRESSING MACHINE



**FORTUNA ENGINEERING INDUSTRIES**  
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## MONO WIRE DRESSING MACHINE TECHNICAL SPECIFICATION

<b>MODEL</b>	MEC / 7 X 14	<b>Water Pressure Required</b>	2 bar
<b>TYPE</b>	4 Wheel Type	<b>Wire Tension</b>	6 bar
<b>Max Block Length</b>	4.25 Mtrs (14')	<b>Main Motor power</b>	20 HP (A.C. Drive) (15 kW)
<b>Max Block Height</b>	2.1 Mtrs (7')	<b>Up and Down motor</b>	3 HP (A.C. Drive)
<b>Max Block Width</b>	2.1 Mtrs (7')	<b>Trolley motor Linear</b>	2 HP
<b>Max Wire Speed</b>	40 Mtrs/Second (Variable Speed by AC Drive)	<b>Trolley motor Revolving</b>	2 HP
<b>Diamond Wire Length</b>	20.1 Mtrs	<b>Compressor</b>	1 HP
<b>Speed of wire lifting and lowering</b>	305 mm/Minute (Fast up & down)	<b>Total installed power without Pump</b>	28 HP ( 21 kW)
<b>Water Requirement</b>	40 Ltrs/Minute		

**OVER ALL DIMENSIONS :** Length 9.1 Mtrs Width 3.1 Mtrs Height 5.1 Mtrs

### MACHINE STRUCTURE AND MECHANISMS

Machine Structure is made with Heat Treated MIG welded steel, ensuring the required stiffness for avoiding vibration at the time of cutting the stone. It has two vertical columns and are connected to steel fabricated Beam. Two opposite carts containing the components for the Wire Motion slide vertically along the Machined columns by means of Lead Screw mechanism. Thus moving the wire up and down.

The wire is rotated by a Driving Fly Wheel with a Diameter of 1200 mm with A/C Drive controlled asynchronous motor that optimizes the wire linear speed according to the Hardness of the Stone. A driven pulley with the same diameter in constantly kept under tension by a pneumatic cylinder thus giving the wire the ideal tension. The mechanism is completed by two independent driven pulleys with a diameter of 800 mm installed next to the point where the wire gets in and comes out.

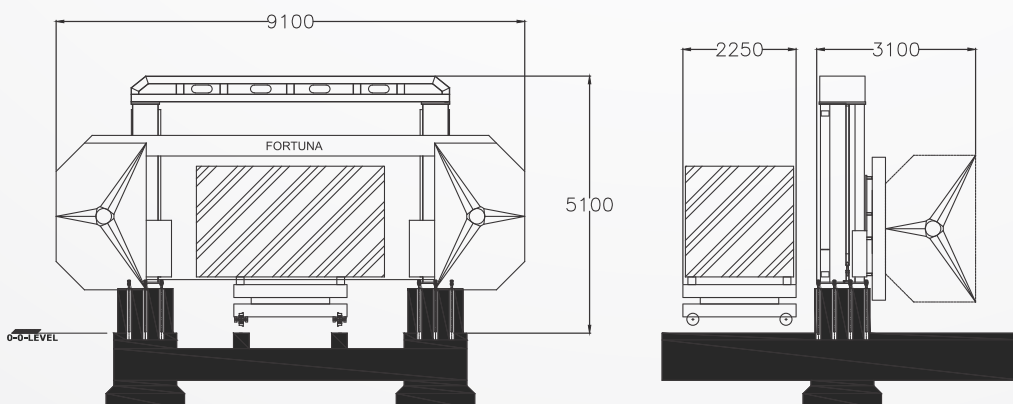
**LUBRICATION :** Manually operated lubrication system provides lubrication to critical points.

**PAINTING :** In order to ensure a high corrosion strength, both the structure and the components are painted with water proof ISI make paint.

**PULLEY COATING :** All pulleys are coated with special, interchangeable, wear resistant elastomer profiles.

**SAFETY MEASURES:** Limit switch connected to the stretching cylinder detects any possible breakage of the wire and stops the machine instantly and also a wire protection cover is provided to prevent accident in case of wire breakage.

**AUTOMATIC ADJUSTMENT OF LOWERING THE WIRE :** When cutting, wire lowering speed is automatically managed by A/C Drive control system. Lifting and lowering limits is controlled by means of limit switches.



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